



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)

Jeffrey A. BEDELL, et al.)

Serial Number: 09/883,501)

Filed: June 19, 2001)

Attorney Docket No. 53470.003041)

For: SYSTEM AND METHOD FOR)
RUN-TIME REPORT RESOLUTION)
OF REPORTS THAT INCLUDE)
PROMPT OBJECTS)

Group Art Unit: 2176

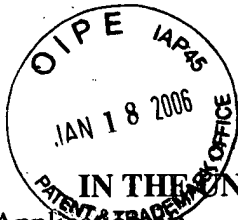
Examiner: Maikhanh NGUYEN

APPEAL BRIEF



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APPEAL BRIEF

In response to the Office Action dated June 2, 2005, finally rejecting pending claims 1-20, appellant respectfully requests that the Board of Patent Appeals and Interferences reconsider and withdraw the rejections of record, and allow the pending claims, which are attached hereto as an Appendix A.

I. REAL PARTY IN INTEREST

The real party in interest is Microstrategy, Inc., the assignee of the above-referenced application.

II. RELATED APPEALS AND INTERFERENCES

There are no known related appeals or interferences.

III. STATUS OF CLAIMS

Claims 1-20 are pending in this application. The rejection of claims 1-20 is appealed.

IV. STATUS OF AMENDMENTS

No amendments to the claims have been filed subsequent to the final rejection dated June

2, 2005.

V. SUMMARY OF INVENTION

Appellant believes that a brief discussion of the background technology, followed by a brief summary of the embodiments of the invention and the problems solved by the embodiments of the present invention, will assist the Board of Patent Appeals and Interferences (hereinafter referred to as “the Board”) in appreciating the significant advances made by the embodiments of the present invention. Finally, concise explanations of each of the independent claims is provided, including reference to exemplary portions of the specification and figures.

A. The Background

Reporting and decision support systems have been developed to efficiently retrieve selected information from data warehouses. One type of decision support system is known as an on-line analytical processing system (“OLAP”). In general, OLAP systems analyze the data from a number of different perspectives and support complex analyses against large input data sets. OLAP systems generate output upon execution of a report that includes a template to indicate the way to present the output and a filter to specify the conditions of data on which the report is to be processed.

Reports may be extremely complicated and require many seconds, minutes, and sometimes even hours to process. Designing such complex reports is labor intensive. Further, in current systems, once a report is designed, if a user desires to change the template, filter, or any other sub-object or component, a completely new report must be created through the same laborious tasks. Although some report writing wizards have been developed in this field, those wizards also must be programmed and often only provide specific options from which a report designer may choose. Accordingly, the report writing wizards are often not useful to the report

designer that generates a complex report. The inflexibility of current report creation systems is a drawback of current OLAP. Other drawbacks with current systems exist as well.

B. The Embodiments of The Present Invention

Accordingly, the present invention provides prompt objects that may be used to define some or every aspect of a report. A prompt object in object-oriented programming terms is a separate object from any report in which it is contained. In one embodiment, a prompt object contains a single question to be answered, validation values for the answer, and attributes indicating how the prompt object is to be processed. In addition, default values may be provided for the prompt object. *See Page 2, lines 4-9.*

A report can thus be defined by selecting prompt objects in place of portions of static report definition including, but not limited to, templates, filters, or any of the aspects of a template or filter. Report definition involves specification of the elements to generate an output. For example, if a template is defined by a prompt object, then when a report is executed, the report prompts the user to select a template. The selected template is then validated based on the prompt object validation values and then processed. To resolve a report, a report instance – a term used to indicate an actual execution of a defined report – is created at the client side and passed to the intelligence server. The intelligence server then passes the report instance to a resolution server that collects all of the prompt objects contained in the report instance, such as through the use of an object server that retrieves the prompt objects from the metadata repository through a metadata server. The resolution server creates a resolution object that includes all of the prompt questions from all of the prompt objects in the report instance by extracting the questions and validation criteria from the prompt objects. The resolution object then comprises a complete list of all of the questions to be answered to fill in the blanks of the report definition to

be executed. *See Page 2, line 10 - Page 3, line 3.*

A client-side report server is then passed the report instance with the resolution object. The client-side report server then raises an event to prompt the user to respond to the questions in the resolution object. If an answer to a question in the resolution object raises additional prompt objects, then the process iteratively passes the report instance back and forth between client and server until the user on the client side has answered all questions with an answer that does not lead to another prompt. *See Page 3, lines 4-9.*

The resolution server then creates an application object from the origin application object with the answers from the resolution object “filled in” to the prompts. The application object contains logic that understands how to fill in the answers to create a prompt-free application object. The report execution modules then process the application object just as it does every other one without any indication that the application object ever had any prompts. Thus, prompts are used without any change to the report execution modules. *See Page 3, lines 10-16.*

By using prompt objects that are resolved at run-time, a complex report may be created that enables a wide variety of variation, depending on user preferences. A relatively untrained person may then execute the report, respond to the prompts and get a customized report. *See Page 3, lines 17-20.*

This system provides advantages over report-writing wizards as well because it enables easy customization of the questions to be asked to the user. Only those properties or objects that are defined by prompts result in a question for the user to answer prior to run-time execution. The benefit is illustrated by an example. A report wizard has a fixed number of questions and answers to be provided before it creates a report. By using prompt objects, the report creator determines the number of questions. Instead of requiring the user to input fifteen answers,

therefore, the user may only be required to provide two or three, for example. Further, the question may ask for the template and filter. Also, the questions to be asked of the user may be changed by selecting different prompt objects, rather than having to rewrite the wizard code. *See Page 3, line 21 - Page 4, line 8.*

C. Explanation of Independent Claim 1

A system (100) for resolving reports (110) that include prompt objects, wherein the prompt objects comprise a question to be asked of a user and at least one validation property (Page 16, line 16 - Page 17, 6), the system comprising:

a receiving memo for receiving a report instance (302 and 414) from a client that has initiated report execution of the report that includes one or more prompt objects and transmits the report instance to a report server (412; Page 2, lines 15-21; Page 19, line 3 - Page 20, line 20);

a resolution server (502; Page 23, line 16 - Page 24, line 2) that gathers the one or more prompt objects referenced in the report and generates a resolution object (310; Page 17, lines 7-22) containing the one or more questions from the one or more prompt objects gathered (Page 2, line 18 - Page 3, line 3; Page 20, line 21 - Page 20);

report prompt interaction means for interacting with a user to receive answers to one or more questions in the resolution object (Figure 6; Page 3, lines 4-9; Page 21, line 21 - Page 22, line 21); and

report execution means for executing the report upon receiving answers from a user to the one or more questions in the resolution object (502; Page 24, lines 9-20).

D. Explanation of Independent Claim 9

A method for resolving reports that include prompt objects, wherein the prompt objects comprise a question to be asked of a user and at least one validation property (Page 16, line 16 -

Page 17, 6), the method comprising the steps of:

receiving a report instance (302 and 414) at a server system (103) from a client that has initiated report execution of the report that includes one or more prompt objects (412; Page 2, lines 15-21; Page 19, line 3 - Page 20, line 20);

gathering at the server system (103) the one or more prompt objects referenced in the report (502; Page 23, line 16 - Page 24, line 2);

generating a resolution object containing the one or more questions from the one or more prompt objects gathered (310; Page 17, lines 7-22; Page 2, line 18 - Page 3, line 3; Page 20, line 21 - Page 20);

interacting with a user to receive answers to one or more questions in the resolution object (Figure 6; Page 3, lines 4-9; Page 21, line 21 - Page 22, line 21); and

executing the report upon receiving answers from a user to the one or more questions in the resolution object (502; Page 24, lines 9-20).

E. Explanation of Independent Claim 16

A medium containing code for causing a processor to resolve reports that include prompt objects, wherein the prompt objects comprise a question to be asked of a user and at least one validation property (Page 16, line 16 - Page 17, 6), the medium comprising:

code for causing a processor to receive a report instance (302 and 414) at a server system (103) from a client that has initiated report execution of the report that includes one or more prompt objects (412; Page 2, lines 15-21; Page 19, line 3 - Page 20, line 20);

code for causing a processor to gather at the server system the one or more prompt objects referenced in the report (502; Page 23, line 16 - Page 24, line 2);

code for causing a processor to generate a resolution object containing the one or more

questions from the one or more prompt objects gathered (310; Page 17, lines 7-22; Page 2, line 18 - Page 3, line 3; Page 20, line 21 - Page 20);

code for causing a interacting with a user to receive answers to one or more questions in the resolution object (Figure 6; Page 3, lines 4-9; Page 21, line 21 - Page 22, line 21); and

executing the report upon receiving answers from a user to the one or more questions in the resolution object (502; Page 24, lines 9-20).

VI. ISSUE

The issues on appeal are whether the following rejections are proper: (1) the rejection under 35 U.S.C. § 103(a) of claims 1-6, 8-12, and 14-20 based on U.S. Patent No. 5,963,939 to McCann (“McCann”), and (2) the rejection under 35 U.S.C. § 103(a) of claims 7 and 13 based on McCann in view of U.S. Patent No. 6,569,205 to Poggi (“Poggi”).

VII. ARGUMENT

The rejections of claims 1-2 over McCann or McCann in view of Poggi fail to make out a *prima facie* case of obviousness and must thus be withdrawn. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must be found in the prior art, and not in the applicant’s disclosure. *In re Vaeck*, 947 F.2d 488, 493 (Fed. Cir. 1991); M.P.E.P. §2143. The pending Office Action fails to meet at least two of these requirements.

The Federal Circuit has unequivocally stated that “obviousness is measured by the

claims.” *In re Sovish*, 769 F.2d 738 (Fed. Cir. 1985). Further, *all* claim limitations must be taught or suggested by the prior art in order to make out a proper *prima facie* case of obviousness. *In re Royka*, 490 F.2d 981, 984-85 (C.C.P.A. 1974); *In re Wilson*, 424 F.2d 1382, 1385 (C.C.P.A. 1970) (“All words in a claim must be considered in judging the patentability of that claim against the prior art.”).

The Office Action also fails to properly identify any motivation to combine the cited references to achieve the claimed invention. In fact, the pending §103(a) rejection of claims 1-20 over McCann and McCann and Poggi exemplifies classic hindsight reconstruction that is contrary to the law. Controlling Federal Circuit and Board precedent require that the Office Action set forth specific and particularized motivation for one of ordinary skill in the art to modify a primary reference to achieve a claimed invention. *Ruiz v. A.B. Chance Co.*, 234 F.3d 654, 664 (Fed. Cir. 2000) (“[t]o prevent a hindsight-based obviousness analysis, [the Federal Circuit has] clearly established that the relevant inquiry for determining the scope and content of the prior art is whether there is a reason, suggestion, or motivation in the prior art or elsewhere that would have led one of ordinary skill in the art to combine the references.”)

Simply put, the Office has failed to set forth a *prima facie* case of obviousness for any of the pending independent and dependent claims. The references cited do not teach or suggest many recitations of the pending claims, and the alleged motivation to modify or combine is not taught or suggested by any of the cited references. In view of the deficiencies, appellant respectfully submits that the Office has failed to set forth any proper basis for rejecting the claims, and thus requests that the pending rejections be withdrawn and the pending claims be allowed.

The impropriety of the rejections with respect to each claim is addressed below.

A. The Rejection Under 35 U.S.C. § 103(a) of Claims 1-6, 8-12 and 14-20 Based on U.S. Patent No. 5,963,939 to McCann (“McCann”) is Improper

The Office Action fails to set forth a proper *prima facie* case of obviousness based on the McCann reference. McCann discloses asking a customer a series of questions to determine a business solution for that customer. More specifically, McCann discloses:

An object-driven application tool allows a Value Added Reseller (VAR) to access a large body of publicly available information about computing devices and to identify the needs of a particular customer or end user and to select an appropriate solution of equipment, hardware, and networking products to meet the customer's needs. Moreover, the tool includes capabilities allowing a VAR to demonstrate to the end user the appropriateness of the solution, for allowing information entry in high level, abstract business-oriented vocabulary rather than a highly technical low level jargon (thus facilitating data entry of information obtained from the end user) and allowing the tool to recognize whether, for example, a slight increase in memory capacity beyond the express needs of the end user may allow a dramatic reduction in requirements for processor speed or non-volatile data storage. The latter tools allow the exemplary embodiment of the present invention to suggest superior solutions over and beyond the express needs of the end user. Selection of a particular solution is generally decoupled from the needs of the end user, which are stored in a separate database; thereafter, as new equipment to obtain on-line information relating to new products and services. Information in the database also includes retrofit information, so that new products can be installed into existing networks.

See, McCann Abstract.

McCann does not disclose or suggest “receiving a *report instance* from a client that has initiated report execution of the report that includes one or more prompt objects,” as recited in independent claims 1, 9, and 16. First, McCann does not disclose or suggest a “report.” In fact, the word “report” does not appear anywhere in the McCann specification.

Applicants’ specification defines a report instance as “an actual execution of a defined report.” *See*, Specification, page 2, lines 17-18. The Office Action cites Figure 45 and items 556 and 558 of Figure 45 to teach this element. Figure 45 shows a web page having a sign-on box including a prompt and text field for ID (556) and password (558). This is not “an actual

execution of a defined report.” Presumably, the web page is created by the server, so it is not clear what in Figure 45 has been received by and initiated by the client. Regardless, whatever is received by the server and initiated by the client in Figure 45 is not a report instance.

McCann also does not disclose or suggest “gather[ing]...the one or more prompt objects referenced in the report.” The Office Action cites a sign-on button 562 in the login screen of Figure 45 to teach this feature. The sign-on button causes the server to receive the ID and password entered into the web page. The ID and password are merely answers to a prompt, and this action merely involves the transfer of data from one place to another. The ID and password themselves are not prompt objects. They do not each comprise a question to be asked of a user and at least one validation property. Thus, nothing about the sign-on button or the login screen of Figure 45 discloses or suggests gathering prompt objects. Furthermore, any prompts or objects involved in Figure 45 are not related to a report.

McCann also does not disclose or suggest “generat[ing] a resolution object containing the one or more questions from the one or more prompt objects gathered.” The Office Action argues that the Question Block Base Class 100 and Figures 58A-58V teach this feature. McCann describes the Question Block Base Class 100 as including “a large Base Class of questions that may be posed to a user to identify user preferences.” McCann, col. 23, lines 30-34. Figures 58A-58V show such questions as “Who will be the primary user of this desktop?” Figure 58E.

However, the questions of Question Block Base Class 100 and Figures 58A-58V do not include questions from any prompt object included in report instance. While the Office Action contends that the ID 556 and password 668 prompts are prompt objects of a report instance, the questions of these prompts are not those that are gathered in the Question Block Base Class 100 or Figures 58A-58V. Conversely, the questions in the Question Block Base Class 100 and

Figures 58A-58V do not correspond to prompts that are included in a report that is received by the server, as recited in the claims.

Finally, as acknowledged in the Office Action, McCann does not disclose or suggest “executing the report upon receiving answers from a user to the one or more questions in the resolution object.” Office Action, p. 4. The Office Action contends that this step is obvious, but fails to provide proper motivation to change or modify McCann. *Id.* Applicants contend that this step is not obvious.

Further, Applicants respectfully submit that the Office Action fails to properly demonstrate a motivation to combine the cited references to achieve the claimed invention. For example, the Office Action states that “[w]hile McCann does teach a report having a prompt objects and receiving answers from a user to the one or more questions in the resolution object (*see Fig. 57*), McCann does not explicitly teach “executing.” The Office Action asserts that “[i]t would have been obvious to one having ordinary skill in the art at the time of the invention was made to have applied McCann’s teaching to include executing the report because it would have provided the capability for allowing the user to submit over the Internet all or some of products that they desire to purchase to the manufacturer, supplier or distributor.” The Office Action alleges that McCann’s “submit purchase order” of Figure 57 and “purpose of submitting purchase order” suggests “executing.” In effect, therefore, the alleged motivation amounts to no more than: because it would have allowed the user to provide the information he or she wants. Applicants respectfully submit that such a motivation is not suggested anywhere in McCann and the Office Action fails to provide any other source to back up that blanket contention.

Moreover, Applicants are perplexed at how the “submit purchase order” of Figure 57 and the purpose for submitting the purchase can be found to suggest the specific step of “executing

the report upon receiving answers from a user to the one or more questions in the resolution object.” In particular, Applicants respectfully submit that the mere submission of a purchase order fails to teach or suggest the step of executing the report upon receiving answers from a user to the one or more questions in the resolution object. Thus, the Office Action’s obviousness rejections are nothing more than conclusory statements comprising the type of hindsight reconstruction that the courts and this Board have warned against for decades.

Claims 2-8, 10-15, and 17-20 depend from claims 1, 9, and 16, respectively, and thereby incorporate the features discussed above by reference. Thus, McCann does not disclose or suggest these claims for the same reasons.

For at least the reasons set forth above, the pending obviousness rejection of claims 1-6, 8-12 and 14-20 based on McCann is improper and should be overturned.

B. The Rejection Under 35 U.S.C. § 103(a) of Claims 7 and 13 Based on McCann in view U.S. Patent No. 6,569,205 to Poggi (“Poggi”) is Improper

The Office Action cites Poggi to teach the claim element “check[ing] for cached reports prior to report execution,” as recited in claims 7 and 13. Poggi discloses:

A method and system for report presentation and navigation in a computer system that includes multiple reports about multiple components. The method and system include defining relationships between the multiple reports and the multiple components, and visually representing the relationships on a currently displayed report. The method and system further include visually indicating a position of the currently displayed report among the relationships, thereby reducing user disorientation while navigating through the multiple reports.

Poggi Abstract.

McCann does not disclose or suggest claims 1 and 9 for the reasons discussed above. Poggi does not remedy the deficiencies of McCann. The combination of McCann and Poggi similarly fails to disclose or suggest claims 1 and 9. Claims 7 and 13 depend from claims 1 and 9, respectively. Thus, the combination of McCann and Poggi fails to disclose or suggest claims

7 and 13.

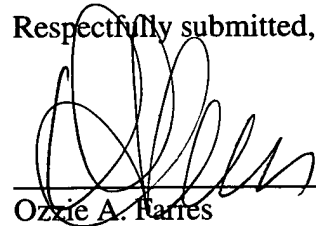
Furthermore, the combination of McCann and Poggi is improper. Applicants respectfully submit that the Office Action's alleged motivation -- providing the capability for presentation and navigation in a computer system that includes multiple reports about multiple components -- is not suggested anywhere in McCann or Poggi and the Office Action fails to provide any other source to back up that blanket contention. Moreover, Applicants respectfully submit that there is no motivation to combine Poggi with the teachings of McCann because McCann does not disclose a "report" or, as the Office Action admits, "report execution." Office Action, p. 4.

For at least these reasons, therefore, Applicants respectfully request that the instant rejection of claims 7 and 13 be withdrawn.

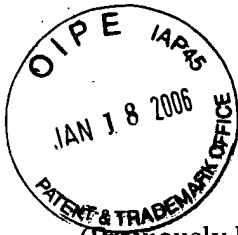
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APPENDIX A - Pending Claims

1. (Previously Presented) A system for resolving reports that include prompt objects, wherein the prompt objects comprise a question to be asked of a user and at least one validation property, the system comprising:
 - a receiving memo for receiving a report instance from a client that has initiated report execution of the report that includes one or more prompt objects and transmits the report instance to a report server;
 - a resolution server that gathers the one or more prompt objects referenced in the report and generates a resolution object containing the one or more questions from the one or more prompt objects gathered;
 - report prompt interaction means for interacting with a user to receive answers to one or more questions in the resolution object; and
 - report execution means for executing the report upon receiving answers from a user to the one or more questions in the resolution object.
2. (Original) The system of claim 1 further comprising an object server that retrieves the prompt objects from a metadata repository.
3. (Original) The system of claim 1 wherein the report prompt interaction means is part of a client system connected over a network to a server system, and the server system comprises the receiving means, the report server, the object server, and the report execution means.
4. (Original) The system of claim 1 wherein the report prompt interaction means comprises a web server that interacts with a user.
5. (Original) The system of claim 1 wherein the resolution server merges

multiple instances of the same prompt object to generate a single question to be included in the resolution object.

6. (Original) The system of claim 5 wherein the report prompt means asks the question once of the user and the report execution means applies the answer to each instance of the prompt object in the report.

7. (Original) The system of claim 1 wherein the report server checks for cached reports prior to report execution.

8. (Original) The system of claim 1 wherein report instance comprises one or more origin application objects that include the prompt objects; and wherein the resolution server uses the resolution object to generate filled in application objects with the answers from the resolution object in place of prompts objects in the origin application object.

9. (Original) A method for resolving reports that include prompt objects, wherein the prompt objects comprise a question to be asked of a user and at least one validation property, the method comprising the steps of:

receiving a report instance at a server system from a client that has initiated report execution of the report that includes one or more prompt objects;

gathering at the server system the one or more prompt objects referenced in the report;

generating a resolution object containing the one or more questions from the one or more prompt objects gathered;

interacting with a user to receive answers to one or more questions in the resolution object; and

executing the report upon receiving answers from a user to the one or more questions in the resolution object.

10. (Original) The method of claim 9 wherein the step of gathering prompt objects comprises using an object server to retrieve the prompt objects from a metadata repository.

11. (Original) The method of claim 9 further comprising the step of merging multiple instances of the same prompt object in a report to provide a single question for those prompt objects in the resolution object.

12. (Original) The method of claim 11 further comprising the step of receiving an answer to the single question for multiple instances of the same prompt and applying the answer to each instance of the prompt object in the report.

13. (Original) The method of claim 9 further comprising the step of checking for cached reports prior to report execution.

14. (Original) The method of claim 9 wherein report instance comprises one or more origin application objects that include the prompt objects; and wherein the resolution server uses the resolution object to generate filled in application objects with the answers from the resolution object in place of prompts objects in the origin application object.

15. (Original) The method of claim 9 further comprising the step of prompting the user to answer the questions from the prompt object over a web interface.

16. (Original) A medium containing code for causing a processor to resolve reports that include prompt objects, wherein the prompt objects comprise a question to be asked of a user and at least one validation property, the medium comprising:

code for causing a processor to receive a report instance at a server system from a client that has initiated report execution of the report that includes one or more prompt objects;

code for causing a processor to gather at the server system the one or more prompt

objects referenced in the report;

code for causing a processor to generate a resolution object containing the one or more questions from the one or more prompt objects gathered;

code for causing a interacting with a user to receive answers to one or more questions in the resolution object; and

executing the report upon receiving answers from a user to the one or more questions in the resolution object.

17. (Original) The medium of claim 16 further comprising code to cause a processor to gather prompt objects using an object server to retrieve the prompt objects from a metadata repository.

18. (Original) The medium of claim 16 further comprising code to cause a processor to merge multiple instances of the same prompt object in a report to provide a single question for those prompt objects in the resolution object; and code to cause a processor to receive an answer to the single question for multiple instances of the same prompt and apply the answer to each instance of the prompt object in the report.

19. The medium of claim 16 further comprising: code to cause a processor to provide one or more origin application objects;

code for causing a process to generated filled in application objects with the answers from the resolution object in place of prompt objects in the origin application object.

20. (Original) The medium of claim 16 further comprising code for causing a web server to interact with the user to obtain answers to one or more prompt questions.